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**PACIFIC  TELESIS**  
Group - Washington

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**William F. Caton**  
Acting Secretary  
Federal Communications Commission  
Mail Stop 1170  
1919 M Street, N.W., Room 222  
Washington, D.C. 20554

Dear Mr. Caton:

Re: *Gen. Docket No. 90-314, RM-7140, RM-7175, RM-7618 - Amendment of the Commission's Rules to Establish New Personal Communications Services*

On behalf of Pacific Bell and Nevada Bell, please find enclosed an original and six copies of their "Reply" in the above proceeding.

Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions or require additional information concerning this matter.

Sincerely,

*William F. Adler / ksf*

Enclosures

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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

JAN 13 1994

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )

)  
Amendment of the Commission's  
Rules to Establish New Personal  
Communications Services )

GEN Docket No. 90-314

RM-7140, RM-7175, RM-7618

REPLY OF PACIFIC BELL AND NEVADA BELL

Pursuant to section 1.429(g) of the Commission's rules, Pacific Bell and Nevada Bell ("the Pacific Companies") hereby reply to comments on and oppositions to the Petitions for Reconsideration of the Commission's Order<sup>1</sup> that created the requirements for Personal Communications Services ("PCS").

I. COMMENTERS OVERWHELMINGLY SUPPORT INCREASED POWER LIMITS. CONTRARY POSITIONS SHOULD BE IGNORED AS SELF-SERVING.

The vast majority of those filing oppositions and comments agree with our position that the Commission's recommended base station power limit is too low and would place PCS providers at a distinct disadvantage vis-a-vis cellular providers. All parties addressing the issue agree that significantly increasing the power limit for PCS base stations will allow for the economic

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<sup>1</sup> Amendment of the Commission's Rules to Establish Personal Communications Services, GEN Docket 90-314, FCC 93-451, Second Report and Order released October 22, 1993 ("PCS Order").

deployment of diverse PCS technologies and permit competition with cellular and ESMR providers.<sup>2</sup> Any limit set for radiated power should permit the stations to operate up to 2400 watts EIRP per RF channel.<sup>3</sup>

Although UTC supports an increased power limit, it believes that additional protection for fixed microwave users may be necessary.<sup>4</sup> Northern Telecom performed a study showing that additional protection is not directly tied to increased power limits. The study concludes that increasing power limits to 1600 watts EIRP will not lead to any additional interference for any fixed microwave users. Therefore, no additional protection is needed.<sup>5</sup> Although we advocate an increase to at least 1900 watts EIRP, we agree with Northern Telecom's study results that convincingly indicate that raising power limits from 100 watts to 1600 watts does not adversely affect existing microwave users.<sup>6</sup> Moreover, further increasing power to 2400 EIRP will not significantly increase interference with incumbent users,

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<sup>2</sup>See e.g., MCI, p. 19; Bell Atlantic, p. 14; American Personal Communications p. 21; Alcatel, p. 4; General Communication, Inc., p. 2; Citizens Utilities Company, pp. 12-14; and GTE, p. 11.

<sup>3</sup>Pacific's Petition for Reconsideration, p. 3.

<sup>4</sup>Utilities Telecommunications Council, p. 15.

<sup>5</sup>Northern Telecom Inc., pp. 1-6.

<sup>6</sup>Id. at 4.

based on the additional path loss in the 2 GHz frequency bands, and is required to achieve parity with cellular providers.<sup>7</sup>

Apple Computer also expressed concern about interference with unlicensed devices if radiated power from base stations is increased.<sup>8</sup> Interference is not just a function of the transmitted power but also the path loss. The path loss is affected by both the building clutter and the operating frequency. PCS frequencies have 9dB more path loss than cellular frequencies.<sup>9</sup> Controlling this interference can be most effectively accomplished by properly defining the etiquette to limit the interference with devices that operate in the unlicensed bands, not by artificially limiting the base station radiated power and ignoring the path loss.

NEXTEL, supporting the Commission's stringent power limit, states that it would be unwise to increase power limits and that the "vision of low-power, microcellular PCS systems innovatively serving local telecommunications needs would evaporate."<sup>10</sup> But the vision of a thriving, competitive, PCS market is more likely to evaporate if power limits are not increased. Increased limits give the new market entrants, PCS

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<sup>7</sup>See, Pacific's Opposition and Comments, p. 2 and Appendix A.

<sup>8</sup>Apple Computer, Inc., p. 4.

<sup>9</sup>See, Pacific's Petition for Reconsideration, p. 4.

<sup>10</sup>NEXTEL Communications, Inc., p. 15.

providers, a real opportunity to compete with entrenched cellular and ESMR providers. Overcoming the hurdle of entering a growing and established market, with rigorous construction requirements and too many licensees, is made much more difficult if power limits are not dramatically increased to allow cell size parity. We therefore urge the Commission to accept the overwhelming support from diverse commenters that advocate power limit increases.

**II. MODIFIED CONSTRUCTION REQUIREMENTS ARE NECESSARY TO FACILITATE COMPETITION BETWEEN PCS AND CELLULAR PROVIDERS.**

Many commenters support modifying the construction requirements required by the PCS Order. Some, however, urge the Commission to retain the requirement that PCS providers build-out their PCS service to serve 90 percent of the population in 10 years.<sup>11</sup> They allege that changing the build-out requirements may prohibit some people from obtaining access to PCS. In order to serve those who want access to PCS, however, providers must be able to economically provide them with service. A 90 percent requirement is simply too onerous.

There are two reasons why PCS build-out requirements must be modified. The 2 GHz band has poorer propagation than 800 MHz, requiring more cell sites and more investment cost to reach the same number of subscribers. In addition, the economics of late

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<sup>11</sup>See, e.g., NYNEX, p. 8.

entrants are disadvantaged when compared to the first entrants because they are higher on the cost curve, this results in an inability to justify as aggressive a build-out. In fact, forcing all licensees to meet very aggressive business office requirements would result in fewer economically effective licenses in any geography or each licensee artificially offering a high-power, broad-coverage service like paging, to meet their user requirement. Both of these results would prevent some of the goals stated for this proceeding, that is competition among providers and diversity of services. It may be that those that wish to retain the full build-out requirements set forth by the Commission have cellular interests that outweigh their PCS interests and would therefore prefer new PCS entrants to be economically disadvantaged.

The arguments raised by General Communications Inc. (GCI) misunderstand Pacific's position. GCI argues that those that advocate any relaxation of the build-out requirements "do not wish to see PCS deployed universally and in competition with cellular."<sup>12</sup> In fact, the opposite is true: only by loosening the construction requirements will PCS providers be able to offer an economical alternative to cellular service. Under the 100 watt power limit coupled with a build-out requirement to cover 90 percent of the population in 10 years, PCS providers may find it

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<sup>12</sup>GCI, p. 13.

uneconomical to provide access in certain areas which cellular providers can cover with very large macro cells.

Furthermore, the suggestion that any problems that arise with meeting the build-out requirement can be handled by waivers is very short-sighted.<sup>13</sup> Needing to obtain a waiver increases the doubt and uncertainty some prospective PCS providers will face in considering bidding for licenses, because of the increased risk of license forfeiture if they fail to meet the Commission's build-out requirement. For these reasons, Pacific urges the Commission to eliminate the 90 percent requirement.

III. THE COMMISSION SHOULD RETAIN CELLULAR ELIGIBILITY LIMITATIONS.

Cellular providers and their affiliates generally have advocated the elimination or relaxation of cellular eligibility requirements.<sup>14</sup> The limitations advocated by the Commission are designed to allow PCS providers the opportunity to be successful in the wireless market in competition with the incumbent cellular providers. Without these eligibility limitations, incumbent cellular providers could outbid new entrants for licenses on the basis of the defensive value to maintain their customer base as

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<sup>13</sup> Id. See also, Citizens Utility Company, p. 10.

<sup>14</sup> See e.g., McCaw Cellular Communications, Inc., p. 5, 10; GTE Service Corp., p. 3; Bell Atlantic Personal Communications, Inc., p. 10, NYNEX, p. 10 and Cellular Telecommunications Industry Association, p. 3.

well as the value from growth. The limitations on cellular eligibility, along with the build-out obligations, safeguard against the need for anti-stockpiling rules in the auction proceeding. Thus, the Commission should retain the present eligibility rules.

**IV. PARTITIONING OF LICENSES SHOULD BE CONSTRAINED TO PREVENT CELLULAR PROVIDERS FROM OBTAINING AN UNFAIR ADVANTAGE.**

Some commenters are encouraging the Commission to allow PCS licensees to negotiate agreements with other PCS licensees for additional spectrum, to sublicense, subdivide and partition licenses.<sup>15</sup> These proposals are not in the public interest because they are likely to allow incumbent cellular providers to skirt the eligibility limitations supported in the preceding paragraph to the further competitive disadvantage of PCS providers. Allowing such partitioning of licenses could permit incumbent cellular operators within an MTA to carve out geographic areas or frequencies where they again use the defensive value of their existing operations (including customer base, acquired cell sites, and deployed antennas), as well as the value from gaining new customers, to jointly outbid PCS providers for the very MTA licenses which were created to support the viability of new entrants. Moreover, if licensees manipulate partitioning to evade

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<sup>15</sup> See e.g., Telocator, p. 7, McCaw Cellular Communications, Inc., pp. 22-24, and Citizens Utilities Company, pp. 6-10.



the build-out requirements, the Commission's goals of competitive PCS service providers offering economical service to the public will be completely frustrated by unpredictable gamesmanship.

McCaw advocates partitioning to benefit rural providers but also points out that partitioning "takes on added importance in the event the Commission retains its limitations on cellular participation in PCS."<sup>16</sup> McCaw asserts that:

"If the Commission explicitly permits PCS licensees to partition their operating authority, cellular licensees could and should be permitted to obtain up to 15 MHz within any portion of the PCS band. This in turn would allow cellular carriers to use up to 40 MHz of combined cellular and PCS spectrum."<sup>17</sup>

It is clear that cellular entities will use partitioning to expand their competitive position. The Commission should reject this tactic by the cellular providers and deny commenters' requests for partitioning if it would allow cellular providers to increase the limits on their acquisition of spectrum.

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<sup>16</sup>McCaw Cellular Communications, Inc., p. 22.

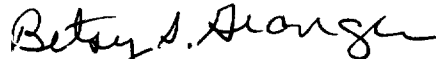
<sup>17</sup>Id. at 24.

V. CONCLUSION

For the reasons stated above, we respectfully request that the Commission adopt the positions stated herein.

Respectfully submitted,

PACIFIC BELL  
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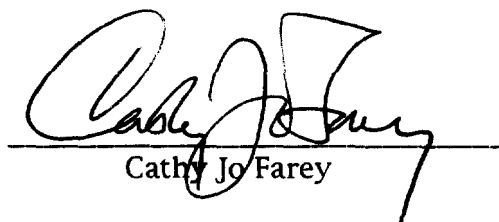
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Their Attorneys

January 13, 1994

CERTIFICATE OF SERVICE

I, Cathy Jo Farey, on behalf of Pacific Bell and Nevada Bell, do hereby certify that I caused a copy of their foregoing "Reply of Pacific Bell and Nevada Bell" in connection with GEN Docket No. 90-314, RM-7140, RM-7175, RM-7618, to be served to the parties indicated on the attached service list by United States mail, postage prepaid, on this 13th day of January, 1994.



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